

WHAT IS CLAIMED IS:

1. A pneumatic shooting device, comprising:
a barrel; and
an action including a housing defining a pressure reservoir with a discharge outlet connected to said barrel, a linear bearing body coupled with said housing, and a piston having a
5 discharge end, said piston being slidably movable within said linear bearing body to selectively open and close said discharge outlet.
2. The pneumatic shooting device of claim 1, wherein said piston includes an actuating end, said housing includes an actuating reservoir, said actuating end at least partially located within said actuating reservoir.
3. The pneumatic shooting device of claim 2, further including a pressurized gas source pneumatically connected to both said pressure reservoir and said actuating reservoir.
4. The pneumatic shooting device of claim 2, further including a supply fitting pneumatically connected to said pressure reservoir, an actuator fitting pneumatically connected to said actuating reservoir and a slip ring connected to both said supply fitting and said actuator fitting, said slip ring for a proper positioning of said supply fitting and said actuator fitting.
5. The pneumatic shooting device of claim 2, further including an end cap pneumatically connected to said actuating reservoir, said end cap having an exhaust vent connected to an ambient.

6. The pneumatic shooting device of claim 2, further including a pressurized gas source, a trigger being located pneumatically between said pressurized gas source and said actuating reservoir, and a trigger safety mechanically connected to said trigger.

7. The pneumatic shooting device of claim 1, wherein said discharge end includes a radial seal.

8. The pneumatic shooting device of claim 1, wherein said pressure reservoir includes a barrel interface, said discharge opening located at said barrel interface, said barrel interface includes a face seal.

9. The pneumatic shooting device of claim 1, further including a pressurized gas source pneumatically connected to said pressure reservoir, a regulator pneumatically connected to said pressurized gas source and a tubing from said regulator to said pressure reservoir.

10. The pneumatic shooting device of claim 9, wherein said tubing has a burst pressure and said pressure reservoir has a pressure rating, a ratio of said burst pressure to said pressure rating is no more than 0.5.

11. The pneumatic shooting device of claim 1, wherein said pressure reservoir has both a pressure rating and an operating pressure, a ratio of said operating pressure to said pressure rating is no more than 0.5.

12. The pneumatic shooting device of claim 1, further including a pressure relief valve between said pressure reservoir and an ambient.

13. The pneumatic shooting device of claim 1, further including a breech associated with said barrel, said pneumatic shooting device being loaded with a projectile at said breech.

14. The pneumatic shooting device of claim 1, wherein said pressure reservoir is operated at a pressure of no more than 200 psi.

15. The pneumatic shooting device of claim 1, wherein said discharge outlet has a discharge outlet diameter, said barrel has a barrel diameter, a ratio of said discharge outlet diameter to said barrel diameter is greater than 0.1.

16. The pneumatic shooting device of claim 15, wherein said discharge outlet is an abrupt pneumatic orifice.

17. The pneumatic shooting device of claim 1, wherein said barrel and said housing are one of monolithic and separate.

18. The pneumatic shooting device of claim 1, wherein said piston includes an actuating end, said piston is at least one of pneumatically actuated, electrically actuated, magnetically actuated, electro-magnetically actuated and chemically actuated.

19. The pneumatic shooting device of claim 1, wherein said pneumatic shooting device is one of a bazooka, a grenade launcher, a mortar, a rocket launcher, a cannon, a rocket propelled grenade launcher, a missile launcher, a landmine and a gun.

20. The pneumatic shooting device of claim 1, wherein said linear bearing body is one of defined by and attached to said pressure reservoir

21. An action for use in a pneumatic shooting device, comprising:
a housing defining a pressure reservoir with a discharge outlet;
a linear bearing body coupled with said housing; and
a piston having a discharge end, said piston being slidably movable within said linear
5 bearing body to selectively open and close said discharge outlet.

22. The piston valve of claim 21, wherein said piston includes an actuating end, said housing includes an actuating reservoir, said actuating end at least partially located within said actuating reservoir.

23. A method of operating a pneumatic shooting device, comprising the steps of:
connecting said pneumatic shooting device to a pressurized source gas thereby
pressurizing a pressure reservoir of an action;
loading a projectile into a barrel of said pneumatic shooting device;
5 actuating a trigger of said pneumatic shooting device;
moving a piston within a linear bearing body of said action;
releasing said piston from a discharge outlet in said housing; and

expelling a volume of a pressurized gas through said barrel thereby ejecting said projectile.